AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of wirelessly transmitting a multi-carrier communication signal between a base station and a plurality of users, the method comprising:

determining a transmission link quality between a user and the base station;

assigning a class type to the user based upon the transmission link quality; [[and]]

adjusting a number of sub-carriers comprising the multi-carrier communication signal and one or more of a number of timeslots, modulation rate, coding rate and transmit power allocated to select sub-carrier(s) of the one or more sub-carriers comprising the multi-carrier communication signal for transmission with the user based upon the class type;

communicating the class type of the user to a MAC scheduler; and

the MAC scheduler scheduling all transmission between the base station and the user by assigning transmission frequency slots and transmission time slots to the user, wherein a number of frequency slots assigned to the user per time slot is based on the class type of the user.

2. (Original) The method of claim 1, wherein the channelization mode determines a quantity of frequency spectrum allocated for transmission between the user and the base station.

3. (Original) The method of claim 2, wherein the quantity of frequency spectrum allocated is for the duration of a particular transmission time slot.

4. (Original) The method of claim 2, wherein the allocated frequency spectrum comprises contiguous frequency slots.

5. (Original) The method of claim 4, wherein the frequency slots comprise multi-carrier signals.

6. (Original) The method of claim 4, wherein the frequency slots comprise single carrier signals.

7. (Original) The method of claim 2, wherein the allocated frequency spectrum comprises non-contiguous frequency slots.

8. (Original) The method of claim 7, wherein the frequency slots comprise multi-carrier signals.

9. (Original) The method of claim 7, wherein the frequency slots comprise single carrier signals.

10. (Canceled).

11. (Currently amended) The method of claim [[10]] 1, wherein the number of frequency slots assigned to the user per time slot is further based on real-time system traffic load between the base station and the plurality of users.

12. (Currently amended) The method of claim [[10]] 1, wherein the number of frequency slots assigned to the user per time slot is further based on a quality of service associated with the user.

13. (Currently amended) The method of claim [[10]] 1, wherein the frequency slots comprise multi-carrier signals.

14. (Currently amended) The method of claim [[10]] 1, wherein the frequency slots comprise single carrier signals.

15. (Currently amended) The method of claim [[10]] 1, wherein the frequency slots are contiguous.

16. (Currently amended) The method of claim [[10]] 1, wherein the frequency slots are not contiguous.

17. (Currently amended) The method of claim [[10]] 1, wherein the frequency slots are interleaved.

18. (Currently amended) The method of claim [[10]] 1, wherein a maximum possible number of frequency slots assigned to the user per time slot is based on the class type of the user.

19. (Original) The method of claim 18, wherein the maximum possible number of frequency slots assigned to the user per time slot is further based on real-time system traffic load between the base station and the plurality of users.

20. (Original) The method of claim 18, wherein the maximum possible number of frequency slots assigned to the user per time slot is further based on a quality of service associated with the user.

21. (Currently amended) The method of claim [[10]] 1, wherein predetermined frequency slots within predetermined time slots are allocated for transmission with users having a particular class type.

22. (Currently amended) The method of claim [[10]] 1, wherein the class type of each of the users determines a priority in the MAC scheduler assignment of predefined transmission frequency slots and transmission time slots to the users.

23. (Original) The method of claim 1, wherein the transmission link quality between the user and the base station is determined dynamically.

24. (Original) The method of claim 1, wherein the transmission link quality between the user and the base station is determined periodically.

25. (Original) The method of claim 1, wherein the transmission link quality between the user and the base station is determined when the user is powered up.

26. (Original) The method of claim 1, wherein determining a transmission quality comprises estimating an SNR of signal transmission between the base station and the user.

27. (Original) The method of claim 1, wherein determining a transmission quality comprises estimating a PER of data transmitted between the base station and the user.

28. (Currently amended) The method of claim [[10]] 1, wherein each of the plurality of users are assigned a class type, and

the MAC assigns frequency slots to users having a common class type according to a round robin scheduling scheme.

29. (Currently amended) The method of claim [[10]] 1, wherein each of the plurality of users are assigned a class type, and

the MAC assigns frequency slots to users having different class types according to a round robin scheduling scheme.

30. (Canceled).

31. (Canceled).